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Office de l'efficacité énergétique

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OEE News

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Leading Canadians to Energy Efficiency at Home, at Work and on the Road

Canada's Energy Efficiency Conference

October 2000

Energy efficiency leaders and decision-makers from across Canada and around the world are making plans to attend Canada's Energy Efficiency Conference 2000. The conference will take place at the Ottawa Congress Centre, October 10–12, 2000, and will explore the theme of "Energy Efficiency: Infinite Possibilities . . . Powered by Innovation." It will focus on how energy efficiency can contribute to Canada's climate change objectives, how it can boost the bottom line for business and how it can accelerate the deployment of new technologies. The list of keynote speakers is impressive and growing, and it includes

Robert F. Kennedy, Jr., an accomplished environmental attorney and author; Paul G. Hawken, an award-winning environmentalist, lecturer and best-selling author; and Ray C. Anderson, Chairman and CEO, Interface, Inc.

A focal point of the conference will be the presentation by the Honourable Ralph Goodale, Minister for Natural Resources

Canada of Canada's Energy Efficiency Awards at a ceremony on the evening of October 11. The awards, which recognize Canadian innovation and achievement in energy efficiency, will be presented in eight categories: equipment and technology, housing, buildings, industry, transportation, outreach, media and a student competition. For more information, visit the awards' Web site at <http://oee.nrcan.gc.ca/awards>.

Conference highlights include a trade show, in which more than 70 companies and organizations will showcase innovative energy efficiency technologies, approaches and programs. Building on the success of the

inaugural conference in 1999, Canada's Energy Efficiency Conference 2000 promises to be a tremendous opportunity to learn about energy efficiency opportunities in all sectors, share information and network with delegates from around the world. For more information, visit the conference's Web site at <http://oee.nrcan.gc.ca/conference>.



Robert Kennedy, Jr. will be one of the keynote speakers at Canada's Energy Efficiency Conference 2000.

Natural Resources
CanadaOffice of Energy
EfficiencyRessources naturelles
CanadaOffice de l'efficacité
énergétique

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Canada

Make it a Reno\$ense Renovation

Planning to renovate your home? Then think “Reno\$ense” and renovate with energy efficiency in mind.

That’s the message that Reno\$ense tries to get out to Canadians. Reno\$ense is a consumer-information program designed to encourage Canadian homeowners to incorporate energy efficiency into their home renovation plans. Canadians love to renovate. In fact, it’s now a \$25-billion industry in this country. Reno\$ense provides consumers, particularly do-it-yourselfers, with helpful messages on adding energy efficiency to their home improvement and weatherization projects.

Reno\$ense works with sponsors in the hardware and building supply industry, manufacturers of energy-efficient products for the home, related industry associations and the media. Collaborating with other stakeholders with mutual interests broadens the program’s reach, provides it with new, more targeted channels of distribution for its messages and provides access to markets that would otherwise be beyond reach. Reno\$ense sponsors also gain access to NRCan’s 20 years of research and development in energy-efficient technology and the credibility of association with the Government of Canada.

The Reno\$ense retail network now includes over 3000 outlets. The program’s retail sponsors reach over 20 million

Canadian households with Reno\$ense messages through their advertising flyers. Point-of-purchase displays are placed in hardware stores across the country every year and a colourful, 24-page magazine full of energy-saving tips is distributed nationally. Chances are there’s a store near you that can provide you with everything you need to complete that energy-efficient home improvement job you’ve been planning.

This year, Reno\$ense is trying to reach its target audience through innovative new media. During the month of October 1999, a pilot project took place with *The Ottawa Citizen* Web site. The goal of this pilot project was to reach Reno\$ense’s target audience of homeowners between the ages of 35–55 and direct them to the OEE Web site.

Sample banner ads were developed, featuring the popular “EnerCat” and offering teaser tips designed to entice the reader to seek more information on the OEE’s main Web site full of state-of-the-art information on energy efficiency. The campaign was a success, receiving over 100 000 impressions in English and French, and resulting in a click-through rate more than double the industry average.

Watch for a national advertising campaign to roll out this spring on the Web sites for CBC and Radio-Canada. Let us know what you think — contact us through the OEE Web site at oee.nrcan.gc.ca/new_feedback_e.cfm.

RENO\$ense
HELPING YOU SAVE
ENERGY AND MONEY

FleetWise

Part of the Climate Change Solution

All Canadians need to be part of the climate change solution, and the Government of Canada is showing leadership through action. One of its initiatives is FleetWise, the federal government's program for "greening" its on-road vehicle fleet.

Launched in October 1995, FleetWise is helping federal departments and agencies reduce their fleet operating costs and vehicle emissions through a variety of strategies, focusing primarily on improved energy efficiency and the use of alternative transportation fuels.

Vehicles are one of the world's biggest sources of environmental pollution – in fact, the transportation sector is the single largest source of greenhouse gas emissions in Canada. About 17 percent of Canada's total carbon dioxide emissions come from light-duty vehicles, which also account for most of the 22 000-vehicle federal fleet.

Because of the direct link between fuel consumption and greenhouse gas emissions, FleetWise is a core element of the federal government's emissions reduction action plan submitted to the Climate Change Voluntary Challenge and Registry Inc. in 1995. This action plan sets out the government's commitment to reduce greenhouse gas emissions from federal operations by at least 20 percent from 1990 levels by the year 2005.

Significant progress has been made toward meeting this target. Emissions from federal operations are estimated to have declined by 16 percent from 1990 to 1997. One reason for this success is a 12 percent reduction in the distance travelled by the federal fleet in the first two years of the FleetWise program.

FleetWise provides fleet managers in 15 federal departments with a wide range of information and tools to help them reduce vehicle energy use. Among these tools are the following:

- *A Manager's Guide to Greening the Fleet*, which discusses the fuel choices available to fleet managers and explains the requirements of the *Alternative Fuels Act*, one of which is to integrate new alternative-fuelled vehicles into the federal fleet, where cost-effective and operationally feasible;
- the *FleetWise Planner*, a comprehensive step-by-step guide to energy management for fleets;
- a performance measurement framework for fleet managers; and
- QTOOL software, which helps managers identify opportunities to use alternative fuels in their fleets.

FleetWise is delivered by the OEE and managed through an interdepartmental task force comprising representatives of Natural Resources Canada, Treasury Board, Environment Canada and Public Works and Government Services Canada. For more information, visit FleetWise's Web site at <http://fleetwise.nrcan.gc.ca>.

Because of the direct link between fuel consumption and greenhouse gas emissions, **FleetWise is a core element of the federal government's emissions reduction action plan.**

Tip!



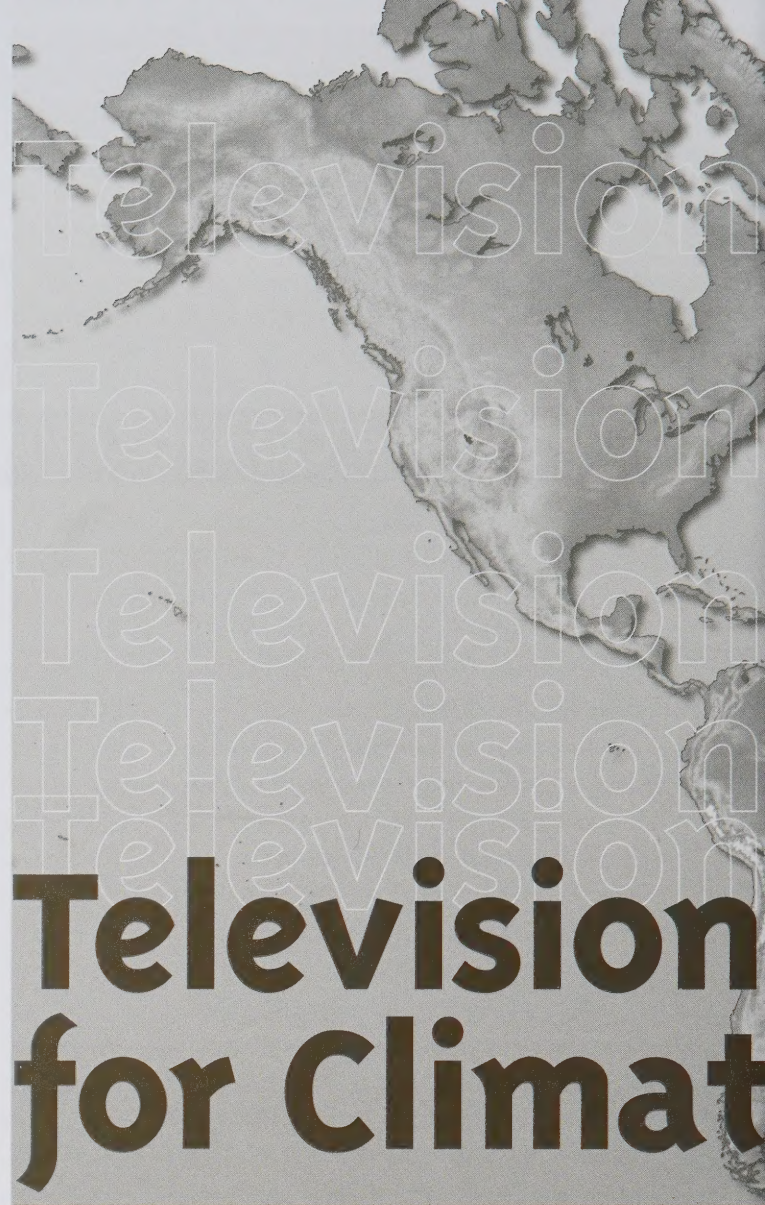
When buying a vehicle, consider energy-efficient features such as standard transmission and cruise control. By maintaining a constant speed on long trips, cruise control will reduce fuel consumption, provided the terrain is relatively flat and you keep your speed down.

Television can be a powerful tool to educate Canadians about climate change, according to the Fondation québécoise en environnement (FQE), a not-for-profit organization that raises awareness of the environment among Quebecers. That is why it is developing a series of 13 TV clips with support from the Government of Canada's Climate Change Action Fund (CCAF), the Ministère de l'environnement du gouvernement du Québec and television broadcasters such as Radio-Canada, Réseau de l'information (RDI), a national French-language television news service, and CBC Newsworld. These two-minute clips, in the form of newscast-style documentaries, will be broadcast weekly, in English and French, to eight million Canadians.

In the 1998 federal budget, the Government of Canada announced the \$150-million CCAF to support early and meaningful actions to reduce greenhouse gas emissions. The CCAF allocated \$30 million to Public Education and Outreach (PEO) activities to inform, educate and motivate behavioural change among Canadians in communities, schools and businesses. In its first two years, PEO has funded more than 125 national and local projects to help raise awareness and understanding of climate change.

The Action Fund was recently extended for a further three years and additional funding announced to support the following climate change initiatives: science, impacts and adaptation; demonstration and deployment of technologies; public education and outreach; and other foundation-building activities.

The FQE project has received funding of \$200,000 from PEO, but it is the partnerships with broadcasters that really shows the importance of climate change. These broadcasters have provided approximately \$700,000 in free air



time. Contributions from organizations such as Société Radio-Canada (SRC), CBC Newsworld and RDI are key to ensuring that this project is seen by Canadians. Other broadcasters, including community cable stations, will also have the opportunity to air these unique public service announcements.

Two people from the OEE's Corporate Services Group have played a big part in the development of the FQE project. Anic-France Nault and Manon Dagenais have been using their experience in communicating the importance of energy efficiency by ensuring that the FQE clips are accurate, informative and, most of all, interesting for viewers. "One of our biggest contributions to this project, on behalf of PEO, has been to ensure that the scripts are reviewed by scientists from Natural Resources Canada and Environment Canada to ensure that the FQE is developing them with accurate and up-to-date scientific information," says Ms. Nault. "Working in such a dynamic medium as television has given me so much experience and so many





GLOBAL
Climate Change
LES CHANGEMENTS
climatiques

A Powerful Tool Change Education

ideas that I can use in my own work at the OEE.”

Ms. Dagenais agrees. “This is a great opportunity to be part of a project that will spread the message that Canadians need to understand how our lifestyles are affecting our climate,” she says. “At the OEE, we’re always looking for new and creative ways to communicate the message of energy efficiency at work, at home and on the road. The FQE and its broadcast partners are demonstrating that climate change is important and that we all need to take action and be part of the solution.”

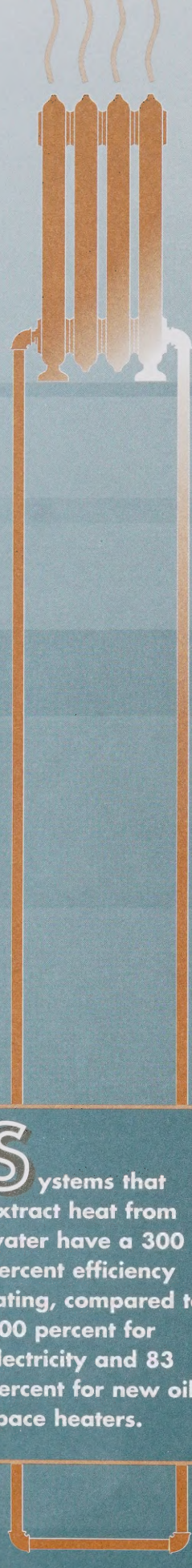
Using the theme “Our Climate is Changing,” the two-minute clips will focus on a variety of subjects. Among the topics being addressed are the science of climate change; how humans are contributing to the problem; current research initiatives; the potential consequences of climate change for our environment, economy and health; and actions Canadians can take to reduce greenhouse gas emissions.

The first clip will include a brief discussion of how different areas of the world may be affected by climate

change and how scientific evidence demonstrates that the impacts will vary worldwide. Another clip will examine how human activity has been affecting the balance of greenhouse gases since the industrial revolution – i.e., how the problem has increased and how it now impacts our lifestyles and creates emissions that are beyond the normal absorption capabilities of oceans and forests.

“For many Canadians, warmer temperatures might not seem like such a bad idea, but scientists warn that this may have great serious consequences for Canada,” says Ms. Dagenais. “While scientists continue their research, they agree that we already know enough to support action to reduce emissions now. That’s why this project is so important. Television is one of the most effective ways to reach Canadians – right in their own living rooms.”

More information on PEO projects and the CCAF is available on the Government of Canada’s climate change Web site at www.climatechange.gc.ca or by calling 1 800 O-Canada (1 800 622-6232).



Systems that extract heat from water have a 300 percent efficiency rating, compared to 100 percent for electricity and 83 percent for new oil space heaters.

AN ENERGY FIRST FOR SPRINGHILL INDUSTRIAL PARK

Many Canadians know Springhill, Nova Scotia, as the little mining town that gave the world international recording star Anne Murray. Now the community has another claim to fame – the first eco-industrial park in Canada that offers businesses access to cheap, clean and efficient renewable energy.

More than 20 years after the coal industry closed down in Springhill, state-of-the-art heat pump technology is being used to produce geothermal energy from the warm floodwaters in the abandoned mines below the town. Twelve commercial and industrial businesses located in or near the Springhill Geothermal Industrial Park are using the technology to extract heat from the floodwaters for heating buildings or water. The process can be reversed in the summer to provide cooling.

Heat pumps are an inherently efficient way to produce energy. Systems that extract heat from water have a 300 percent efficiency rating, compared to 100 percent for electricity and 83 percent for new oil space heaters. Geothermal systems also offer the cheapest cost per million Btu of heat output. As a result of these two factors, the extra installation cost of a geothermal system can be recovered in three to five years.

Geothermal systems also offer major environmental benefits. By reducing the use of fossil fuels, they reduce greenhouse gas emissions that are contributing to climate change. They also use a renewable form of energy, which helps conserve limited fossil fuel resources.

At the Springhill industrial park, the geothermal technology is paying big dividends for several companies. Ropak Can-Am Ltd., a plastics manufacturer, has achieved energy savings of about 50 percent – worth more than \$160,000 a year – using the heat pump technology. MBB Mechanical is saving about \$50,000 a year – 90 percent of its previous fuel costs – and has completely eliminated its use of fossil fuel. Both companies have earned regional energy efficiency awards from the Canadian Electrical Association.

“Geothermal energy is ideal for businesses needing large warehouses or processing facilities,” says Ron Jefferson, Economic Development Officer for the Springhill area. “It’s a reliable, alternative, inexpensive source of energy.”

Springhill officials, businesses and residents are hoping renewable energy can revitalize the area’s economy – and there may be more developments in the future. A consortium of Canadian and U.S. interests is now exploring the potential to use coal bed methane gas to produce sustainable energy.

To learn more about geothermal energy, visit NRCan’s Renewable and Electrical Energy Division Web site at www.nrcan.gc.ca/es/erb/reed. For more information on the Springhill geothermal project, contact Ron Jefferson at (902) 597-8216, by fax at (902) 597-8801 or by e-mail at ronamy@ns.sympatico.ca. You can also visit the Town of Springhill’s Web site at www.town.springhill.ns.ca, or e-mail econdev@istar.ca.

Energy Efficiency Recipe Cooks Up Quick Savings for Maple Leaf Consumer Foods




Maple Leaf Consumer Foods, an Industrial Energy Innovator, is realizing energy cost savings at its Winnipeg plant. All of the plant's capacitors were checked following an energy survey in 1998. Repairs made to some of the power factor capacitors raised the power factor level to the 0.89 to 0.91 range from a pre-repair range of 0.81 to 0.85. This change nets energy cost savings of \$35,000 annually for Maple Leaf Consumer Foods. "In the coming year we are looking to invest in a power factor correction system that, it is hoped, will bring the power factor level up to 0.98 or 0.99 to get a further annual energy cost saving of \$25,000," states Sal Nanda, Chief Engineer, Maple Leaf Consumer Foods.

The company is in the process of developing its Energy Master Plan for 2000 and is installing a blow-down heat recovery system and a vent condensing system from the condensate tank. The continuous blow-down heat recovery system will recover heated water and chemicals from the boiler, now discharged and wasted down the drain, and return them to the steam system. This will reduce the amount of make-up water required by the boilers. Additional heat can be reclaimed by passing the softened water through a heat exchanger to preheat the boiler make-up water supplied to the deaerator. Savings on natural gas,

boiler chemicals and water costs will result in an expected payback period of less than one year.

A proposed vent condensing system will save approximately \$6,570 annually with a payback period of less than 120 days. The water used for the system is estimated to be at a temperature of 65°C (150°F) – the same as that of the make-up water already pre-heated at the boiler blow-down heat recovery unit. Running the same water through the vent condensing heat exchanger will heat it even further and condense all of the vents at the same time. Heat recovery from the vents is 100 percent because all the vents are being condensed first to recover the latent heat from the steam before the balance of the condensate is returned to the condensate tank.



Tip! Don't overfill your refrigerator or freezer. Cool air needs to circulate freely throughout the interior of the appliance.

There are now many options for upgrading an existing lighting system.

LIGHTING A PATH TO

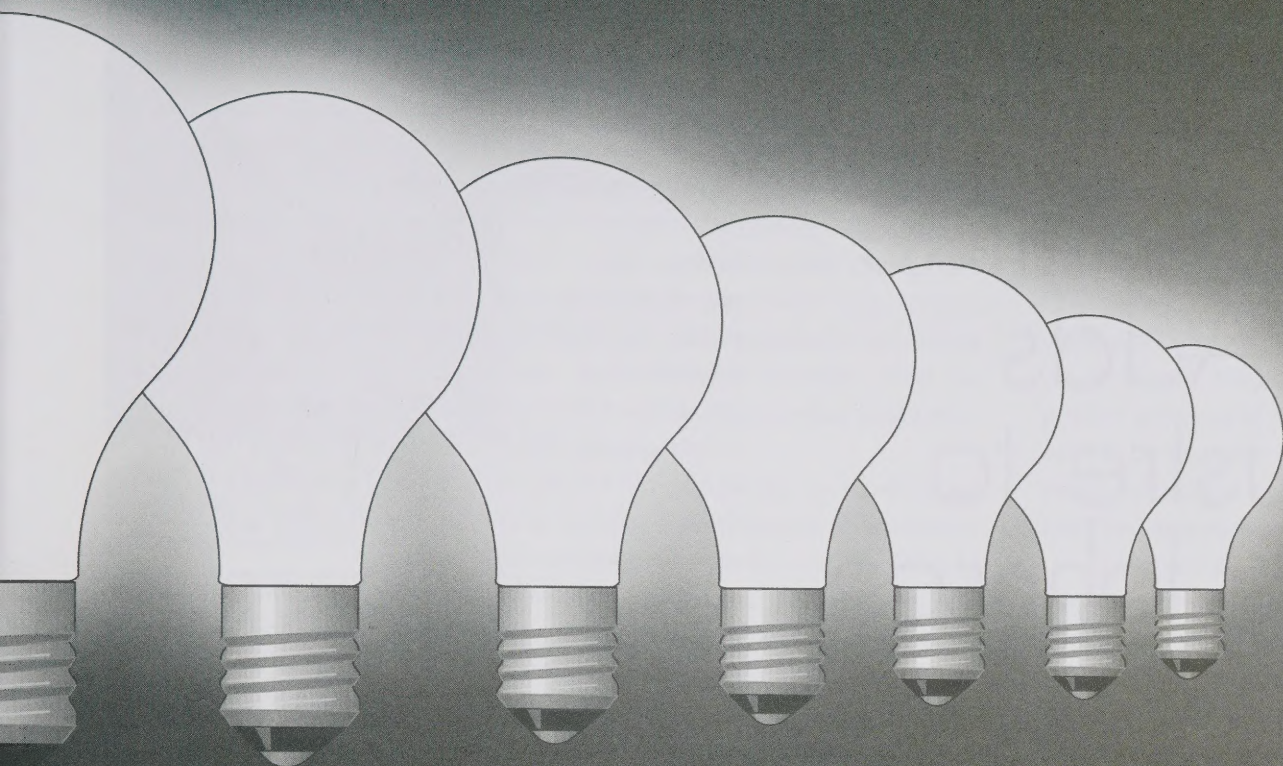
Lighting manufacturers have committed themselves

They have been making improvements in the energy efficiency, service life, light quality and environmental impact of incandescent, fluorescent and high-intensity discharge lamps. By redesigning and enhancing proven technology, they have developed many innovative products that provide new choices for consumers and businesses – choices that can pay for themselves through energy cost savings and help reduce the greenhouse gas emissions that are contributing to climate change.

One example of a recent lighting innovation is the development of the world's first energy-saving MR16 lamp using infrared (IR) technology. This technology recycles the heat produced by the filament, which, in turn, makes the filament hotter and produces more light. As a result, a 37-watt (W) MR16 IR lamp can produce as much light as a standard 50-W MR16 lamp. Over the typical 4000-hour life of a lamp, this translates into energy savings of \$3.90 (all estimated savings in this article are based on an electricity price of 7.5 cents per kWh), which can quickly add up when applied to multiple-lamp installations.

The MR16 IR lamp, with its lower wattage, also generates less heat than its standard counterpart, which means less demand on the building cooling system. If the goal is additional light, the MR16 IR may also be the answer. When using the 37-W version, a fifth lamp can be added to a standard four-lamp track powered by a 200-W transformer. A 50-W MR16 IR that produces as much light as a standard 65-W MR16 is also available.

Another recent development is the extended performance (XP) fluorescent lamp. Improved phosphor technology has been applied to several lamp types, primarily



ENERGY EFFICIENCY

to increasing the energy efficiency of their products

the energy-efficient T-8 lamp. XP fluorescent T-8 lamps have two coats of rare-earth tri-phosphor instead of one, resulting in superior light quality, a high colour-rendering index (i.e., they show colour well), higher light output and a service life of 24 000 hours, compared to 20 000 hours for standard fluorescent lamps.

The benefits are numerous. The additional service life of 4000 hours can mean a full year of extra lamp service in an office complex where lights are on 12 hours a day, thereby reducing lamp replacement costs. The higher light output can translate into considerable energy savings. Replacing a standard lamp/ballast combination with a reduced-ballast-factor ballast and an XP lamp will save about eight watts of electricity, or about \$10.80 per two-lamp fixture, while producing similar light levels.

Another innovation of note is the development of the new 360-W metal halide Super Saver Metalarc® lamp, which uses

improved arc tube technology to produce light output similar to a standard 400-W metal halide lamp. No special ballast or socket is required for the Super Saver, making it the simplest of retrofits. Designed for base-up operation, these lamps can be used in open fixtures, which further simplifies maintenance and reduces relamping costs. The Super Saver lamp quickly pays for itself through estimated energy savings of \$80 over the life of the lamp.

There are now many options for upgrading an existing lighting system. Being an informed consumer who understands the benefits of the different lighting technologies will illuminate your path to energy efficiency!

Tip!



To stay cool at highway speeds, use your car's flow-through ventilation. Avoid opening the sunroof and windows at highway speeds – this causes wind resistance, which increases fuel consumption.

CIPEC Committee Adds Lustre to S.C. Johnson

Key employees at S.C. Johnson and Son, Limited, manufacturers of a variety of household products and an Industrial Energy Innovator, have banded together to support their corporate objective of reducing total energy use per unit of production to 15 percent below 1995 levels by the end of this year. The vice-presidents of manufacturing and technical support, the plant manager and the managers of warehouse and export services and regulatory affairs have formed an internal Canadian Industry Program for Energy Conservation (CIPEC) Steering Committee chaired by the manager of facilities and business administration.

CIPEC is the world's oldest voluntary industrial energy efficiency program and the only industry-wide organization to establish and publish energy intensity improvement targets. CIPEC's goal is to encourage companies to take action and to support them with the information and motivation they need to take the steps necessary for improved energy efficiency.

The committee meets monthly to identify any aspects of the Brantford, Ontario, plant's operations that are eligible for review and improvement. The committee also monitors the plant's energy use on an ongoing basis and files quarterly reports. The committee's current energy-savings focus includes lighting, heating, ventilation, air-conditioning (HVAC) and compressed air efficiency. It is also investigating the implementation of an energy-efficient HVAC system project. The members of the committee are also involved in the company's environmental council, which reviews all programs that have an environmental impact. According to committee chair Jim Huen, "CIPEC is always on the council's agenda. We're very gung-ho on energy savings."

By taking advantage of energy-efficient technologies, equipment and innovations, the company had already reduced energy intensity per unit of production at its Brantford plant by 9.7 percent at the end of 1999.

New energy efficiency initiatives scheduled to be started or completed this year should help the company achieve its energy-reduction targets. A lighting retrofit, facilitated by Ontario Hydro, of all interior lighting in the approximately 32 500 m² (350 000 sq. ft.) facility was scheduled to be completed at the end of February.

In November 1999, the committee commissioned a compressed air system study, which investigated the efficiency of on-demand and continuous running modes. A capital budget has been proposed with work tentatively scheduled to begin in the company's new fiscal year. Savings will be derived from the elimination of cooling water by purchasing an air-cooled compressor and the reclamation of heat. S.C. Johnson successfully diverted the heat from a new 100-HP air compressor to the warehouse two years ago, offsetting winter space-heating requirements.

S.C. Johnson continues to promote energy conservation as part of its annual environmental training program and goals. "The company has well-established environmental values that promote continuous improvement. Energy conservation is seen as a win-win for both the environment and the company – one more step toward sustainability," Jim Huen explains. "These actions cut down on fossil fuel use and help save the environment."

The company has a good eco-efficiency track record. Throughout the 1990s, S.C. Johnson received numerous international awards for its outstanding corporate environmental leadership, including Environment Canada's Corporate Environmental Achievement Award.





Energy Efficiency is a "Competitive Advantage"

Canada must play a leadership role in implementing the Kyoto Protocol and mitigating climate change, and improving energy efficiency is a key part of this endeavour, according to Peter Chantraine, who is lending his knowledge and experience to the process as a member of the National Advisory Council on Energy Efficiency (NACEE).

As Manager of Power, Energy Conservation, Recycling and Environmental Affairs at DuPont

Canada Inc.'s facility in Kingston, Ontario, Mr. Chantraine knows from personal experience that energy efficiency offers economic as well as environmental benefits. And he believes that opportunities exist across the economy.

"The challenge is to motivate people at the individual and corporate levels to look for creative ways to implement these opportunities," he says. "Energy efficiency needs to be seen as a competitive advantage over the long term in all economic sectors and by the Canadian population as a whole."

Mr. Chantraine sees being a member of NACEE as an opportunity to share his expertise with others, to

help increase the effectiveness and efficiency of OEE programs, and to keep abreast of developments in the world of energy efficiency.

"I believe NACEE can provide positive guidance to the government and create a greater sense that the public has a voice in, and input into, how we are governed," he says.

A graduate in chemical engineering from Queen's University, Mr. Chantraine has worked for DuPont since 1966. In 1995, he was appointed Chair of the Canadian Industry Program for Energy Conservation's newly formed Textiles Energy Task Force.

Canada Should Be an Energy Efficiency Leader

Our energy-intensive economy, relatively small population base and cold winter climate all point to the need for Canada to be an international energy efficiency leader, states NACEE member T.R. (Bob) Clapp, Vice-President of the Ontario Division of the Canadian Petroleum Products Institute. In fact, the efficient and effective use of energy is of paramount importance to Canadians.

As a long-time participant in the 25-year-old Canadian Industry Program for Energy Conservation (CIPEC), Mr. Clapp has witnessed significant progress in industrial energy efficiency over the past decade.

"Achieving results through concerted action is the best

demonstration of success, and CIPEC has done that," he says, adding that NACEE should be looking for similar improvements in energy use across the economy.

"As a partnership of government, business, academia and other non-governmental organizations, NACEE is an effective forum to debate and discuss future directions for energy efficiency efforts. The diverse views around the table enrich the discussion and result in a superior outcome."

Mr. Clapp holds a B.Sc. in chemical engineering from Queen's University and a master's degree in chemical engineering from the University of Delaware. He began his career with Imperial Oil in 1966,



occupying various positions in refinery management, product development, employee relations, technical services, safety and environmental affairs. In 1993, he joined the Canadian Petroleum Products Institute as Vice-President, External Relations, and was appointed to his present position in 1996.

Making "\$ense" Across Canada

The OEE's "Dollars to \$ense" workshops continue to be popular with Canadian mining and manufacturing industries. Our original workshop, The Energy Master Plan, now being offered for a third straight year, was presented for the first time in the 1999-2000 series in Toronto on October 26. This year, more than 535 participants have registered for or attended workshops across Canada.

In 1998, the OEE launched the Energy Monitoring and Tracking workshop. More than 525 participants have learned how this workshop can help them to reduce energy costs, and more companies are signing up every day. Participant satisfaction rates in the categories of organization and content, learning materials and instruction were well over 85 percent for both workshops.

A third workshop, Spot the Energy Savings Opportunities, was introduced in the fall of 1999. Check the calendar below for upcoming workshops near you. Don't delay – start saving energy today! For more information on the "Dollars to \$ense" workshops, contact Monique Caouette of the OEE at (613) 996-2494, or by e-mail at caouette@nrcan.gc.ca.

UPCOMING "DOLLARS TO \$ENSE" WORKSHOPS

The Energy Master Plan

Rouyn-Noranda, Que. (in French) May 9, 2000

Monitoring and Tracking

Rouyn-Noranda, Que. (in French) May 10, 2000

Halifax, N.S. May 16, 2000

Victoria, B.C. June 6, 2000

St. John's, Nfld. June 12, 2000

Spot the Energy Savings Opportunities

Winnipeg, Man. May 8, 2000

Winnipeg, Man. May 9, 2000

Here's what a few participants in recent "Dollars to \$ense" workshops had to say:

Spot the Energy Savings Opportunities

"This was a great workshop. With the information we obtained we are now looking to set our facility's environmental goals for the year 2000 and beyond. This will be a pilot project that we hope to expand to our five facilities across Canada."

I liked the hands-on type of demonstration. The example of office coffee brewing and how much energy it takes was great. A lot of people can't seem to grasp how energy-efficient motors can save energy, but everyone understands a pot of coffee. This example can lead to culture change as it touches everyone."

More than anything, the workshop opens the door to where you can obtain more information."

I expect to bring more staff when the workshop returns to Toronto on February 16."

–Spiro Kapoulos, Regulatory Affairs Coordinator
with the Energy Efficiency Portfolio,
Nacan Products Limited

Energy Monitoring and Tracking

"We do try to save energy here and do get substantial payback from the projects that we have initiated. The workshops are another tool that we explored. Liked the theory that you should set up a group of individuals to address monitoring and tracking energy."

–Jim Turner, Designer, Boeing Toronto Ltd.

The Energy Master Plan

"I wasn't very familiar with energy management before I attended the workshop, but I found it very useful and have passed on the knowledge that I acquired to management. We are looking to be ISO 14000 in the new year and thought that the workshop would be good to assist us in meeting ISO objectives by using less energy and enable us to monitor what we use. We have recommendations to cut down our power use within all three of our facilities in Calgary."

–Claude Duval, S.H.E.A. Administration,
Raytheon Systems Canada

Survey Reveals Strong Market for EnerGuide for Houses Service

Canadians who plan to undertake a home renovation project this year see a potential benefit in the EnerGuide for Houses energy efficiency evaluation service, according to the Canada Mortgage and Housing Corporation, which administered the largest consumer survey devoted to home purchase and renovation in Canada.

Conducted in November 1999, the survey found that almost 4000 respondents in Halifax, Montréal, Toronto, Calgary, Edmonton and Vancouver intended to renovate a home within the next year. Homeowners who planned to do simple painting or decorating work were removed from the statistical analysis. The OEE's EnerGuide for Houses Program participated in the survey to obtain baseline data on awareness of the EnerGuide for Houses service.

The survey found that between 25 and 35 percent of respondents across Canada recognized the EnerGuide name. However, when asked specifically about the EnerGuide for Houses Program, the recognition factor dropped to an average of 12 percent. This would seem to indicate that much of the current consumer recognition of EnerGuide stems from the labelling program for major household appliances, which has been in place for a number of years.

Nevertheless, the survey revealed a significant market for the EnerGuide for Houses home energy evaluation service. After hearing a brief description of the service and being informed that there was a fee, five percent of respondents expressed immediate interest in the service and 30 percent indicated they would like to receive more information. Interest levels were consistent across the country with the exception of Montréal, where homeowners showed significantly less interest in obtaining more information.

The survey also found that the more people plan to spend on renovations, the more they value the EnerGuide for Houses energy efficiency label. Twenty-three percent of those planning to spend more than \$10,000 on renovations, and 25 percent of those planning to spend between \$5,000 and \$10,000, said the label would be "very useful," either to establish a home's energy use for resale purposes or to evaluate the impact of a renovation on energy consumption.

Similarly, the more people spend to renovate, the more they seek professional advice such as that offered through the EnerGuide for Houses service. Among homeowners planning to spend more than \$10,000 on renovations, 57 percent rated "getting professional advice" as very important.

Saving money was a key reason for incorporating energy efficiency into a renovation project – 78 percent of respondents indicated that "reducing energy bills" was an important goal. The objective of "improving comfort" also ranked highly, particularly among homeowners in Montréal and Edmonton, where 79 percent and 72 percent of respondents respectively identified it as being important. "Getting professional renovation advice" was a priority for homeowners in Calgary (71 percent) and Vancouver (72 percent). "Ventilation and air quality" issues were given more importance in the East (74 percent) than in the West (67 percent).

For further information on the EnerGuide for Houses Program, visit the program's Web site at <http://energuide.nrcan.gc.ca/houses>.



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ENERGY EFFICIENCY

Monitoring Progress in Canada

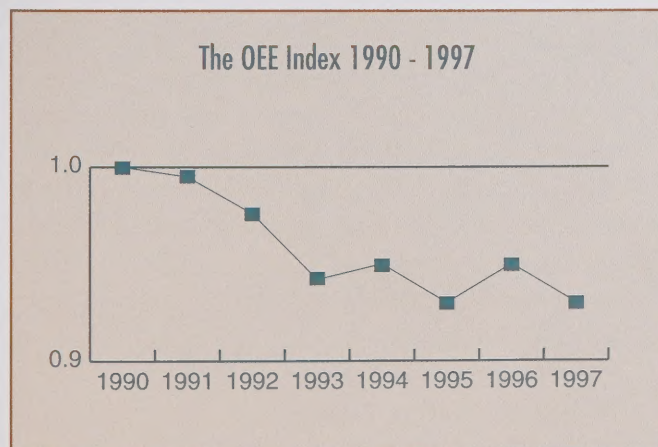
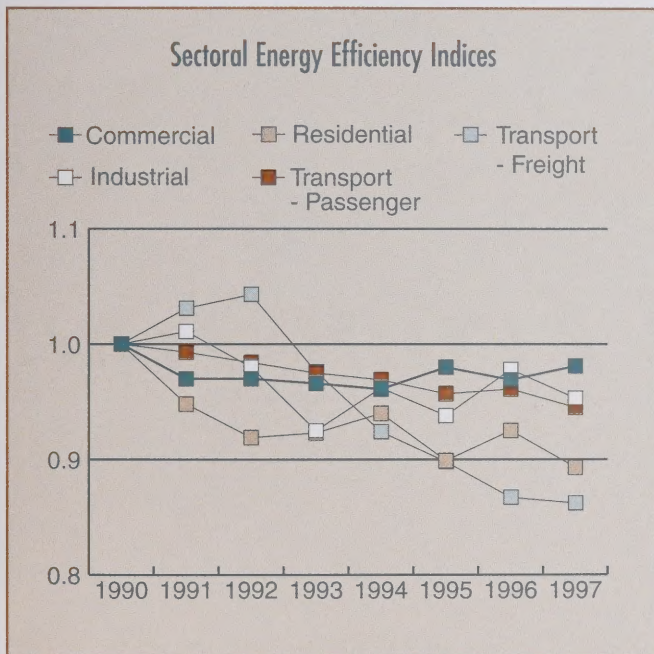
In January, the Office of Energy Efficiency published *Energy Efficiency Trends in Canada: An Update*, the fourth annual review of energy efficiency in Canada. This report delivers on Canada's commitment to track national market trends in energy efficiency and their contribution to changes in energy use and related carbon dioxide emissions. Improving energy efficiency is a key element of Canada's National Action Program on Climate Change, the strategy to reach our objectives for the reduction of greenhouse gas emissions. This study will help governments, industry and stakeholders to evaluate the progress that is being made.

The report discusses trends from 1990 to 1997 in all major end-use sectors of the Canadian economy: residential, commercial, industrial, transportation and agricultural. In each sector, through a factorization methodology, energy use changes are adjusted to remove the effect of activity, structure (mix of activity) and weather. The residual change is considered to be due to energy efficiency. Energy efficiency is measurable only at the greatest level of disaggregation – the energy efficiency level of a furnace, for example. This method of measuring energy efficiency might still mask other factors affecting energy use, such as shifts in the mix of industrial products, operating practices or the occupation density of commercial buildings.

Tip! If your computer has integrated power management capabilities, ensure the system is configured to use them. Where printers and photocopiers have an energy-saver mode, make sure it is operating (machines are often shipped with this feature disabled).



For the first time, this version of the report combines sectoral energy efficiency variations to calculate an economy-wide measure of energy efficiency changes, known as the OEE index. The OEE index, presented below, shows a decline in value between 1990 and 1997, which indicates that the various sectors of the economy have generated energy efficiency improvements of about 1.0 percent per year during this period.



Despite these improvements, energy use in the five end-use sectors rose by 11.4 percent between 1990 and 1997. This was largely due to increases in sector activity, such as a growth in the number of households, commercial floor area, industrial output and distance travelled. Structural changes that supported a shift in the distribution of sector activity toward more energy-intensive components of the Canadian economy and a 1997 winter that was colder than that of 1990 also contributed to increased energy use.

Improvements in sectoral energy efficiency were the only factors that kept energy use from rising even more during this period. In fact, if not for these improvements, energy use would have risen by 17.6 percent, making it 435 petajoules greater than was actually observed. This is equivalent to almost half of the energy requirements of all commercial sector buildings. These energy efficiency improvements also lowered carbon dioxide emissions by 24 megatonnes more than they would otherwise have been in 1997.

Many energy efficiency improvements have been introduced in Canada since 1990, including better insulated homes, more efficient home appliances, improved control systems and more efficient circulation and ventilation equipment in commercial buildings, improved fleet management, increased recovery and re-use of industrial waste heat and steam and a greater use of electric and high-efficiency motors.

All sectors have shifted toward a greater use of fuels such as natural gas and electricity, which have a lower carbon dioxide content, contributing significantly to the reduction of greenhouse gas emissions in Canada between 1990 and 1997. If this shift in fuel source had not taken place, carbon dioxide emissions would have been 11.2 megatonnes higher in 1997 than they actually were.

Energy Efficiency Trends in Canada: An Update is available on OEE's Demand, Policy and Analysis Web site at <http://oee.nrcan.gc.ca/dpa>. Click first on "Energy Efficiency Analysis Reports" and then on *Energy Efficiency Trends in Canada: An Update*.

OEE Shines at Globe 2000 Conference and Trade Fair

The OEE was well represented at Globe 2000, an international environmental conference and trade fair that took place in Vancouver from March 22 to 24, with opportunities for both media coverage and high visibility at the trade fair.

Over 10 000 visitors attended the trade fair, giving the OEE the opportunity to share information with the many people who were already familiar with it and to introduce itself to many new stakeholders. As part of a significant representation from Natural Resources Canada and other federal government departments, the OEE was in an excellent position to discuss the role of energy efficiency within the larger scope of climate change.

The OEE was featured in West Coast media coverage leading up to Globe 2000. An exclusive media briefing was held on March 20 and a reception for partners and participants in OEE initiatives in the Vancouver area took place on March 21. The media briefing featured a story on



Cominco Ltd., a leader in energy efficiency and environmental progress. The

Vancouver Sun, Reuters, Société Radio-Canada, *Canadian Environmental Magazine*, *Oil and Gas Product News*, Fairchild Television and *Electrical Line* attended the media briefing, resulting in a three-column story in the financial section of the *Vancouver Sun* and a report on Fairchild Television's evening news. During the conference, a lead-in for a Radio-Canada national network report was prepared on a success story featuring Lafarge Cement and the OEE's participation in reducing the energy consumption of the cement sector. This helped to lay the groundwork for subsequent stories on the OEE.

Taking advantage of every opportunity to ensure that it is known as a resource for Canadians interested in reducing greenhouse gas emissions made the OEE's participation at Globe 2000 a shining success.

We've Heard From You!

Attention-grabbing headlines, easy-to-read articles and "Canadian content" are some of the things people like most about *OEE News*, according to the results of our first-ever reader survey.

The survey was distributed with the previous issue of the newsletter to determine the level of reader interest and how we can better serve your information needs. We have learned that readers generally find the newsletter to be informative, useful and timely.

All types of articles received a good approval rating from respondents, but the success stories and climate change tips were particularly popular. "I like the success stories

the most," wrote one reader. "They provide examples of programs, products or innovations that do work and make a difference."

Readers also indicated strong interest in all subject areas covered by *OEE News*, from the residential and transportation sectors to industrial, commercial and institutional issues, climate change and energy efficiency partnerships.

As we hoped, some readers offered suggestions on how to improve *OEE News* – for example, by providing more information on fleet energy efficiency, lighting, energy-efficient technology developments, utility programs and government grants for energy efficiency.

Many respondents noted that reading articles in *OEE News* had prompted them to visit the OEE's Web site. Respondents who provided their e-mail addresses and indicated they would like to receive the newsletter electronically, rather than by mail, will be advised in advance when a new issue of the *OEE News* is being posted on the Web.

The OEE thanks all respondents for taking the time to complete the survey. As always, we welcome your input. Send your correspondence to:

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